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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,311	09/12/2003	Yasushi Yoda	4641-65672	7825

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EXAMINER	
KRAMER, DEVON C	
ART UNIT	**PAPER NUMBER**
3683	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,311	YODA ET AL.	
	Examiner	Art Unit	
	Devon C Kramer	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) *9-12,14,27-35,38,39,43-46,49 and 50* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,13,15-26,36,37,40-42,47 and 48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1) Claims 9-12, 14, 27-35, 38-39, 43-46, and 49-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8/19/04.

2) Applicant's election with traverse of species 1 in the reply filed on 8/19/04 is acknowledged. The traversal is on the ground(s) that the species overlap in features. This is not found persuasive because the seven species presented in the application are patentably distinct from each other. Applicant's listing of the claims that read on species one has left out claims which the examiner thought read on species 1. The listing of applicable claims provided by applicant has been used to examine the application.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) Claims 1, 4-7, 15-19, 24-25 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al (JP 01032055).

In re claims 1 and 36, Nakamura et al provides a shock absorber unit for arresting motion of a moving mass in a vacuum environment (abstract), comprising: a shock absorber having a proximal end and having a distal end capable of extending toward the mass moving with a momentum directed toward the shock absorber; and isolation means (11) for isolating the shock from the environment.

In re claim 4, Nakamura et al provides a distal end of the shock which moves with the mass and the isolation means moves with the distal end and mass.

In re claim 5-7, see element 11.

In re claim 15, Nakamura et al teaches a shock absorber with a liquid and a sheath (11) forming a seal to prevent liquid from entering a vacuum environment. (Abstract)

In re claim 16, since the shock of Nakamura operates in a vacuum chamber and uses an oil, it is considered by the examiner to be vacuum oil.

In re claim 17, see elements 5, 8, and 9 of Nakamura.

In re claim 18, 25, Nakamura provides a bellows (11) having one end attached to a housing and the other end attached to a piston rod.

IN re claim 19, see figure 1.

In re claim 24, every shock absorber has both ends fixed as claimed.

5) Claims 1-7, 15-17, 24-25, 36, 37, 40-42 and 47-48 are rejected under 35 U.S.C. 102(b) as being anticipated by (2002/0075469).

In re claims 1, 36, 37, 40, 41 and 47, Tanaka provides a shock absorber (figure 5) unit for arresting motion of a moving mass in a vacuum environment (col. 25 lines 7-12), comprising: a shock absorber having a proximal end and having a distal end capable of extending toward the mass moving with a momentum directed toward the shock absorber; and isolation means (92) for isolating the shock from the environment.

In re claim 2, Tanaka teaches the shock absorber attached to a wall (figure 3).

IN re claim 3, Tanaka teaches a throughole where the shock is situated, the shock extends through the hole to an inner portion of the chamber.

In re claim 4, Tanaka provides a distal end of the shock which moves with the mass and the isolation means moves with the distal end and mass.

In re claims 5-7, 25, see element 92.

In re claim 15, Tanaka teaches a shock absorber with a liquid and a sheath (92) forming a seal to prevent liquid from entering a vacuum environment. (Col. 20 lines 43-50)

In re claim 16, since the shock of Tanaka operates in a vacuum chamber and uses an oil, it is considered by the examiner to be vacuum oil.

In re claim 17, see elements 102 and 100 of Tanaka. Please note that Tanaka is silent to the internals of the cylinder, but it is inherent that there is a dynamic seal to prevent leakage of fluid.

In re claim 24, every shock absorber has both ends fixed as claimed.

IN re claims 42 and 48, see figure 1.

Claim Rejections - 35 USC § 103

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7) Claims 2-3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (JP 01032055) in view of Tanaka (2002/0075469).

In re claims 2-3, In Nakamura teaches the elements of the shock absorber, including bellows (11), but it is unclear how the device is attached in a vacuum chamber.

Tanaka teaches attaching a shock absorber to a vacuum chamber wall.

It would have been obvious to one of ordinary skill in the art to have placed the vibration damper of Nakamura on a wall with a through hole as taught by Tanaka merely to place the damper in an area where it would efficiently damp vibrations.

The situation of the shock absorber of Nakamura as modified by Tanaka lacks some specific location features as claimed. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the location of the shock in the chamber as claimed since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

In re claim 20, Nakamura lacks the teaching of a spring urging movement of the piston rod relative to the housing.

Tanaka teaches a spring (100) urging movement of the piston rod relative to the housing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the shock of Nakamura with a spring taught by Tanaka to provide the device with a damping effect.

8) Claims 8, 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (JP 01032055) or Tanaka (2002/0075469) in view of Besonen et al (5307753).

In re claims 8 and 13, 26, both Nakamura and Tanaka lack the teaching of an extension limiting device.

Besonen et al teaches the use of an extension-limiting device.

It would have been obvious to provide the shock absorber of Nakamura or Tanaka with an extension limiter as taught by Besonen et al merely to prevent the device from extending too far and become damaged.

9) Claims 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (JP 01032055) in view of Tanaka (2002/0075469) and further in view of Oishi (6332602).

Both Nakamura and Tanaka lack the teaching of attaching the bellows to a disk to which a bumper is mounted.

Oishi teaches a bellows (24) mounted to a disk (19) to which a bumper is mounted (62).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the bellows of Nakamura et al as modified by Tanaka with a disk and bumper as taught by Oishi to provide a means to transmit the force to the shock absorber and to further absorb motion.

10) Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (JP 01032055) in view of Tanaka (2002/0075469) and further in view of Oishi (6332602) and even further in view of Besonen et al (5307753).

In re claims 22, Nakamura, Tanaka and Oishi lack the teaching of an extension-limiting device.

Besonen et al teaches the use of an extension-limiting device.

It would have been obvious to provide the shock absorber of Nakamura as modified by Tanaka and Oishi with an extension limiter as taught by Besonen et al merely to prevent the device from extending too far and become damaged.

In re claim 23, the situation of the extension limiter of Besonen lacks some specific location features as claimed. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the location of the shock in the chamber as claimed since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Conclusion

11) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tanaka, Juds et al, Miura et al, and Kuramoto et al all provide features with similar to the instant application.

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

9-30-04